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Ex no: 01

Date:

Develop an application that uses GUI components, Font and Colors

Aim:

To develop an android application that uses GUI Components, Font and colors.

Algorithm:

- Start the process.
- Open an android project and name your application name
- Design the MainActivity and set the font and color of the application.
- Run the application in Android Virtual Device(AVD).
- Stop the process.

Program:

activity_main.xml

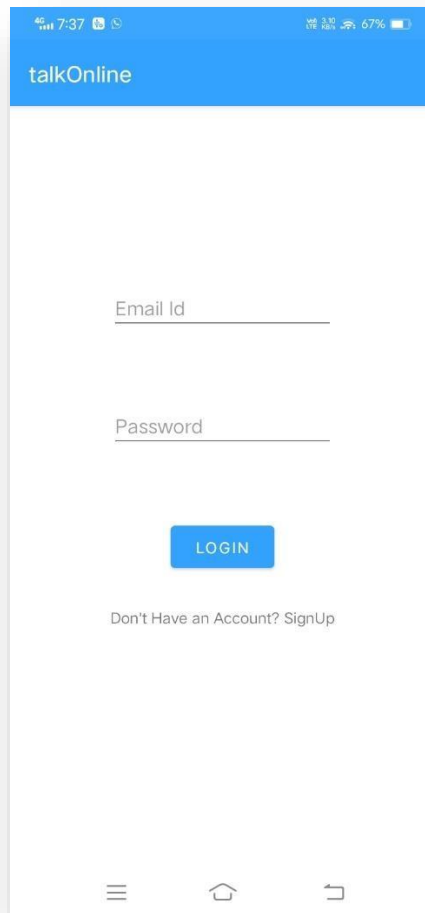
```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <EditText
        android:id="@+id/email"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
```

```

        android:layout_centerHorizontal="true"
        android:layout_marginTop="300px"
        android:hint="Email Id"
        android:inputType="textEmailAddress" />
<EditText
    android:id="@+id/password"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="500px"
    android:hint="Password"
    android:inputType="textPassword" />
<Button
    android:id="@+id/blogin"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="700px"
    android:text="Login" />
<TextView
    android:id="@+id/signUp"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="850px"
    android:text="Don't Have an Account? SignUp" />
</RelativeLayout>

```

Output:



Result:

Thus, the program for android application GUI Components, Font and colors was executed successfully.

Ex no: 02

Date:

Develop an application that uses Layout Managers and Event Listeners

Aim:

To develop an android application that uses Layout Managers and event listeners.

Algorithm:

- Start the process
- Open the existing android application.
- Create a sign up activity, with four TextView field which gets the input of username, email password and confirm password, a signup button and link to the MainActivity.
- In MainActivity, give a link to the login activity using Intent object.
- Run the application in Android Virtual Device(AVD).
- Stop the process.

Program:

MainActivity.java

```
package com.example.talkonline;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
```

```

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    private TextView signUpText;
    private Button blogin;
    private TextView email,password;
    LoadingClass load;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        load = new LoadingClass(MainActivity.this);
        signUpText = findViewById(R.id.signUp);
        blogin = findViewById(R.id.blogin);
        email = findViewById(R.id.email);
        password = findViewById(R.id.password);
        signUpText.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(MainActivity.this,SignUpActivity.class);
                startActivity(intent);
            }
        });
    }
}

```

activity_sign_up.xml

```

?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"

```

```

xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".SignUpActivity">
<EditText
    android:id="@+id/username"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="textPersonName"
    android:hint="Username"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="100px"
    tools:layout_editor_absoluteX="100dp"
    tools:layout_editor_absoluteY="134dp" />
<EditText
    android:id="@+id/email1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="Email Id"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="300px"
    android:inputType="textEmailAddress"
    tools:layout_editor_absoluteX="100dp"
    tools:layout_editor_absoluteY="251dp" />
<EditText
    android:id="@+id/password1"
    android:layout_width="wrap_content"

```

```

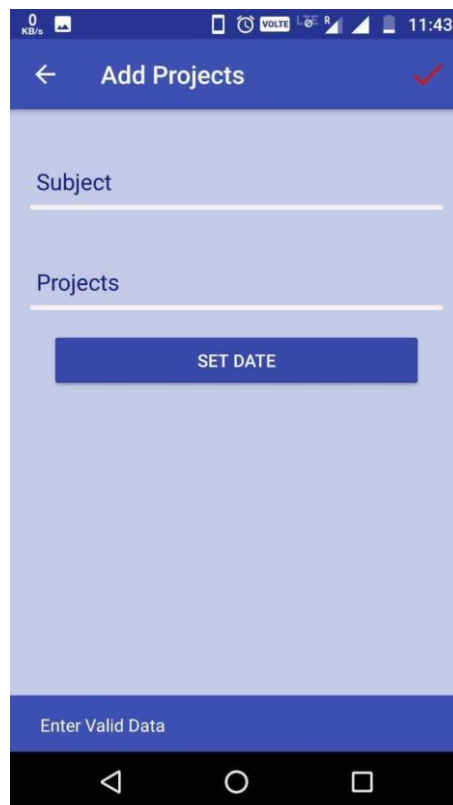
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="Password"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="500px"
        android:inputType="textPassword"
        tools:layout_editor_absoluteX="85dp"
        tools:layout_editor_absoluteY="343dp" />
<EditText
    android:id="@+id/confirmPassword1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="Confirm Password"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="700px"
    android:inputType="textPassword"
    tools:layout_editor_absoluteX="85dp"
    tools:layout_editor_absoluteY="465dp" />
<Button
    android:id="@+id/bsignup"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="900px"
    android:text="SignUp"
    tools:layout_editor_absoluteX="124dp"
    tools:layout_editor_absoluteY="574dp" />
<TextView

```



```
android:id="@+id/login"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_centerHorizontal="true"
android:layout_marginTop="1050px"
android:text="Do you have an account? Login" />
</RelativeLayout>
```

Output:



Result:

Thus, the program for android application that uses layout managers and event listeners was executed successfully.

Ex no: 03

Date:

Write an application that draws basic graphical primitives on the screen

Aim:

To develop an android application that draws basic graphical primitives on the screen.

Algorithm:

- Start the process
- Open the existing android application project
- Try to use basic graphical primitives in the android application.
- A profile activity is created, which contains circular image view in which user can upload their profile image.
- Link the activity to the chat activity.
- Run the application in the Android Virtual Device(AVD).
- Stop the process.

Program:

profile_activity.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".ProfileActivity">
    <androidx.cardview.widget.CardView
```

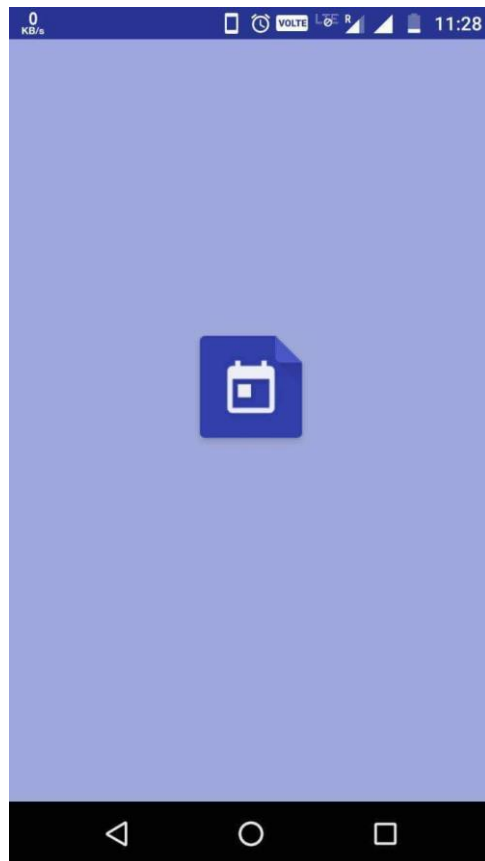
```

        android:layout_width="180dp"
        android:layout_height="188dp"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="150px"
        app:cardCornerRadius="90dp"
        tools:layout_editor_absoluteX="1dp"
        tools:layout_editor_absoluteY="203dp" >
        <ImageView
            android:id="@+id/profile_img"
            android:src="@drawable/account"
            android:layout_width="match_parent"
            android:layout_height="match_parent"/>
    </androidx.cardview.widget.CardView>
    <TextView
        android:id="@+id/username"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:textSize="70px"
        android:layout_marginTop="700px"
        android:text="TextView" />
    <Button
        android:id="@+id/uploading"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="850px"
        android:text="Upload Image" />
    <Button

```

```
        android:id="@+id/logout"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="1000px"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Logout" />
</RelativeLayout>
```

Output:



Result:

Thus, the program for android application that draws basic graphical primitives on the screen was executed successfully.

Ex no: 04

Date:

Develop an application that makes use of database

Aim:

To develop an android application that makes use of database.

Algorithm:

- Start the process.
- Open the existing android project in the android studio.
- Create an account in the Google Firebase, and use this as the database for the application.
- Create a dashboard for the application in the firebase. Create authentication, real time database and cloud storage for the application.
- Connect the application with firebase by adding the correct dependencies in the gradle file.
- Build the project.
- Add the user information in the database.
- Run the application in the Android Virtual Device(AVD).
- Stop the process.

Program:

MainActivity.java

```
package com.example.talkonline;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
```

```

import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
public class MainActivity extends AppCompatActivity {
    private TextView signUpText;
    private Button blogin;
    private TextView email,password;
    LoadingClass load;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        load = new LoadingClass(MainActivity.this);
        signUpText = findViewById(R.id.signUp);
        blogin = findViewById(R.id.blogin);
        email = findViewById(R.id.email);
        password = findViewById(R.id.password);
        if(FirebaseAuth.getInstance().getCurrentUser()!=null){
            load.startLoading();
            Intent intent = new Intent(MainActivity.this,ChatScreenActivity.class);
            startActivity(intent);
            load.dismissLoading();
            finish();
        }
        signUpText.setOnClickListener(new View.OnClickListener() {

```

```

@Override

public void onClick(View view) {

    Intent intent = new Intent(MainActivity.this,SignUpActivity.class);

    startActivity(intent);

}

});

login.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        load.startLoading();

        String semail = String.valueOf(email.getText());

        String spassword = String.valueOf(password.getText());
        FirebaseAuth.getInstance().signInWithEmailAndPassword(semail,spassword).a
        ddOnCompleteListener(new OnCompleteListener<AuthResult>() {

            @Override

            public void onComplete(@NonNull Task<AuthResult> task) {

                if(task.isSuccessful()){

                    load.dismissLoading();

                    Intent intent = new
                    Intent(MainActivity.this,ChatScreenActivity.class);

                    startActivity(intent);

                    Toast.makeText(MainActivity.this, "Logged In Successfully",
                    Toast.LENGTH_SHORT).show();

                }

                else {

                    load.dismissLoading();

                    Toast.makeText(MainActivity.this, "Error in login",
                    Toast.LENGTH_SHORT).show();

                }

            }

        })
    }

}

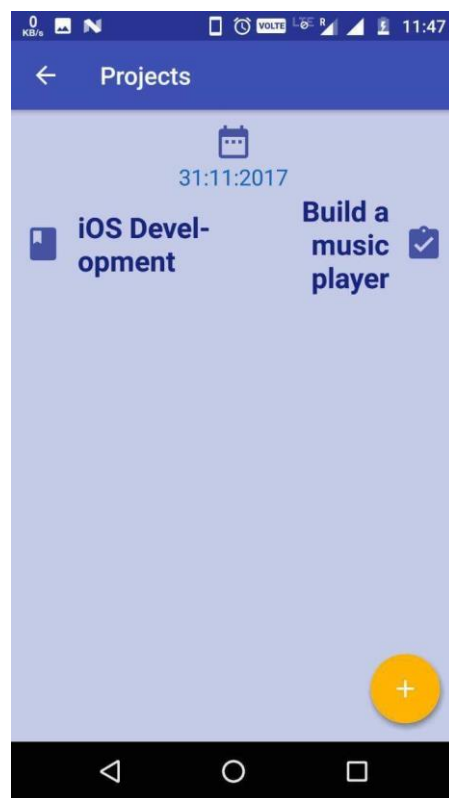
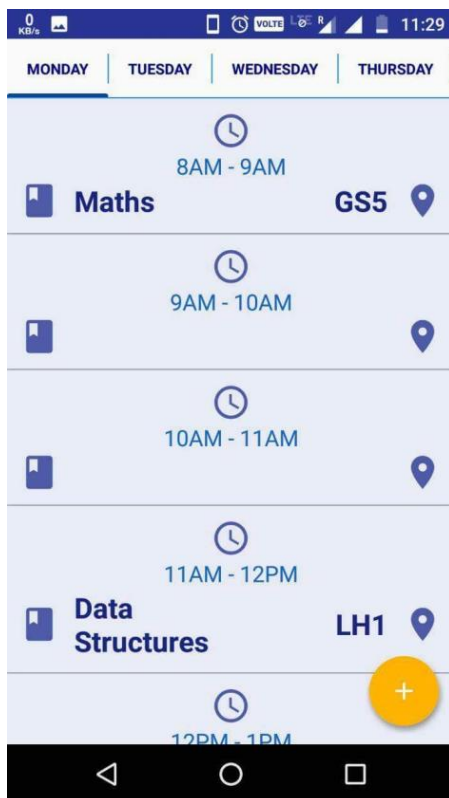
```

```

    });
}
});
}
}

```

Output:



Result:

Thus, the program for android application that makes use of database was executed successfully.

Ex no: 05

Date:

Develop an application that make uses of Notification Manager

Aim:

To develop an Android Application that that makes use of Notification Manager.

Algorithm:

- Start the process.
- Open the existing project in the android studio.
- With help of Notification manager create a notification when the user try to logout the application.
- Edit the ProfileActivity.java to create notification.
- Run the application in the Android Virtual Device(AVD).
- Stop the process.

Program:

ProfileActivity.java

```
package com.example.talkonline;
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.NotificationCompat;
import androidx.core.app.NotificationManagerCompat;
import android.annotation.SuppressLint;
import android.app.NotificationChannel;
import android.app.NotificationManager;
import android.app.ProgressDialog;
```

```
import android.content.Intent;
import android.graphics.Bitmap;
import android.graphics.BitmapFactory;
import android.net.Uri;
import android.os.Build;
import android.os.Bundle;
import android.provider.MediaStore;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;
import com.bumptech.glide.Glide;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
import com.google.firebase.storage.FirebaseStorage;
import com.google.firebase.storage.UploadTask;
import java.io.IOException;
import java.io.InputStream;
import java.net.MalformedURLException;
import java.net.URL;
import java.util.UUID;
```

```

public class ProfileActivity extends AppCompatActivity {
    private Button logout;
    private ImageView imgProfile;
    private Button uploadImage;
    private TextView username;
    private String susername;
    public Uri imagePath;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_profile);
        logout=findViewById(R.id.logout);
        imgProfile =findViewById(R.id.profile_img);
        uploadImage = findViewById(R.id.uploadimg);
        username = findViewById(R.id.username);
        logout.setOnClickListener(new View.OnClickListener() {
            @SuppressWarnings("MissingPermission")
            @Override
            public void onClick(View v) {
                FirebaseAuth.getInstance().signOut();
                Intent intent = new
                Intent(ProfileActivity.this,MainActivity.class).setFlags(Intent.FLAG_ACTIVITY_CLEAR_TASK|Intent.FLAG_ACTIVITY_CLEAR_TOP);
                startActivity(intent);
                NotificationCompat.Builder builder = new
                NotificationCompat.Builder(ProfileActivity.this,"Logout Notification");
                builder.setContentTitle(susername+"Logged Out Successfully");
                builder.setContentText("It's Time to Say 'BYE!'.");
                builder.setSmallIcon(R.drawable.ic_launcher_foreground);
                builder.setAutoCancel(true);
            }
        });
    }
}

```

```

        NotificationManagerCompat compat =
NotificationManagerCompat.from(ProfileActivity.this);

        compat.notify(1,builder.build());

        finish();

    }

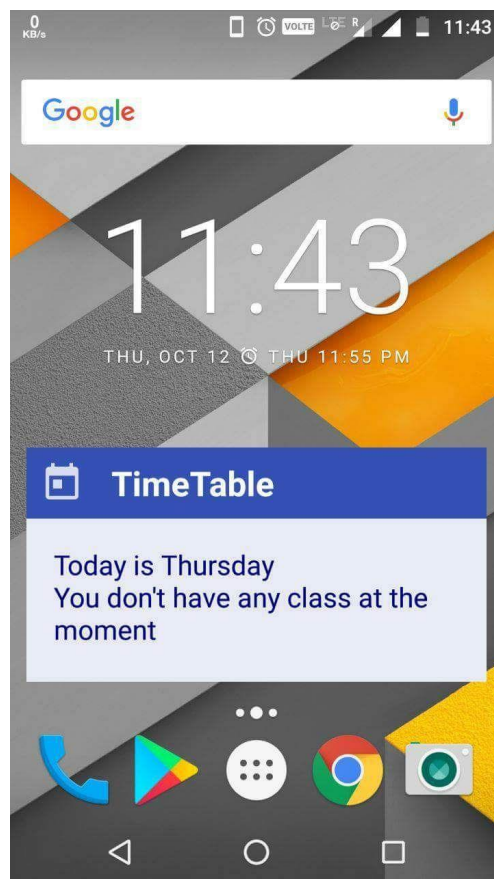
});

}

}

```

Output:



Result:

Thus, Android Application that that makes use of Notification Manager is developed and executed successfully.

Ex no: 06

Date:

Implement an application that implements Multithreading

Aim:

To develop an android application that implements multithreading.

Algorithm:

- Start the process.
- Open the existing project in the android studio.
- Glide helps us to load image in a separate thread.
- With Glide we can upload the images effectively in the Cloud and real time database in Firebase.
- By this we can achieve multithreading in our project
- Run the application in the Android Virtual Device(AVD).
- Stop the process.

Program:

ProfileActivity.java

```
package com.example.talkonline;
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.NotificationCompat;
import androidx.core.app.NotificationManagerCompat;
import android.annotation.SuppressLint;
import android.app.NotificationChannel;
import android.app.NotificationManager;
```

```
import android.app.ProgressDialog;
import android.content.Intent;
import android.graphics.Bitmap;
import android.graphics.BitmapFactory;
import android.net.Uri;
import android.os.Build;
import android.os.Bundle;
import android.provider.MediaStore;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;
import com.bumptech.glide.Glide;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
import com.google.firebase.storage.FirebaseStorage;
import com.google.firebase.storage.UploadTask;
import java.io.IOException;
import java.io.InputStream;
import java.net.MalformedURLException;
import java.net.URL;
```

```

import java.util.UUID;

public class ProfileActivity extends AppCompatActivity {

    private Button logout;
    private ImageView imgProfile;
    private Button uploadImage;
    private TextView username;
    private String susername;
    public Uri imagePath;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_profile);
        logout=findViewById(R.id.logout);
        imgProfile =findViewById(R.id.profile_img);
        uploadImage = findViewById(R.id.uploadimg);
        username = findViewById(R.id.username);
        String id = FirebaseAuth.getInstance().getCurrentUser().getUid();
        DatabaseReference dr =
        FirebaseDatabase.getInstance().getReference("user/"+id);
        dr.addValueEventListener(new ValueEventListener() {
            @Override
            public void onDataChange(@NonNull DataSnapshot snapshot) {
                User value = snapshot.getValue(User.class);
                username.setText(value.getUsername());
                susername = value.getUsername();

                if(!value.getProfilePicture().equals("")){
                    Glide.with(getApplicationContext()).load(value.getProfilePicture()).into(imgPr
ofile);
                }
            }
        }
    }
}

```

```

@Override

public void onCancelled(@NonNull DatabaseError error) {

}

});

logout.setOnClickListener(new View.OnClickListener() {

    @SuppressWarnings("MissingPermission")

    @Override

    public void onClick(View v) {

        FirebaseAuth.getInstance().signOut();

        Intent intent = new
Intent(ProfileActivity.this,MainActivity.class).setFlags(Intent.FLAG_ACTIVIT
Y_CLEAR_TASK|Intent.FLAG_ACTIVITY_CLEAR_TOP);

        startActivity(intent);

        NotificationCompat.Builder builder = new
NotificationCompat.Builder(ProfileActivity.this,"Logout Notification");

        builder.setContentTitle(susername+"Logged Out Successfully");
        builder.setContentText("It's Time to Say 'BYE!'");
        builder.setSmallIcon(R.drawable.ic_launcher_foreground);
        builder.setAutoCancel(true);

        NotificationManagerCompat compat =
NotificationManagerCompat.from(ProfileActivity.this);

        if(Build.VERSION.SDK_INT>=Build.VERSION_CODES.O){

            NotificationChannel channel = new NotificationChannel("Logout
Notification",

                " It's Time to Say 'BYE!'",

                NotificationManager.IMPORTANCE_DEFAULT);

            channel.setDescription("Logout Notification ");
            compat.createNotificationChannel(channel);

        }

        compat.notify(1,builder.build());

```



```

        finish();
    }
});

imgProfile.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent photoIntent = new Intent(Intent.ACTION_PICK);
        photoIntent.setType("image/*");
        startActivityForResult(photoIntent,1);
    }
});

uploadImage.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        uploadProfile();
    }
});
}

@Override
protected void onActivityResult(int requestCode, int resultCode, @Nullable
Intent data) {
    super.onActivityResult(requestCode, resultCode, data);
    if(requestCode ==1 && resultCode==RESULT_OK && data!=null){
        imagePath = data.getData();
        getImageInImageView();
    }
}
}

```

```

private void getImageInImageView() {
    Bitmap bitmap = null;
    try{
        bitmap =
MediaStore.Images.Media.getBitmap(getContentResolver(),imagePath);
    }
    catch(IOException e){
        e.printStackTrace();
    }
    imgProfile.setImageBitmap(bitmap);
}

private void uploadProfile(){
    ProgressDialog progress = new ProgressDialog(this);
    progress.setTitle("Uploading");
    progress.show();

    FirebaseStorage.getInstance().getReference("images/"+
UUID.randomUUID().toString()).putFile(imagePath).addOnCompleteListener(
new OnCompleteListener<UploadTask.TaskSnapshot>() {
        @Override
        public void onComplete(@NonNull Task<UploadTask.TaskSnapshot>
task) {
            if(task.isSuccessful()){

task.getResult().getStorage().getDownloadUrl().addOnCompleteListener(new
OnCompleteListener<Uri>() {
                @Override
                public void onComplete(@NonNull Task<Uri> task) {
                    if(task.isSuccessful()){
                        String url = task.getResult().toString();

```

```

FirebaseDatabase.getInstance().getReference("user/"+FirebaseAuth.getInstance(
).getCurrentUser().getUid()+"/profilePicture").setValue(url);

        }

    }

});

    Toast.makeText(ProfileActivity.this, "Image Uploaded",
Toast.LENGTH_SHORT).show();

    }

    else{

        Toast.makeText(ProfileActivity.this, "Failed To Upload",
Toast.LENGTH_SHORT).show();

    }

    progress.dismiss();

    }

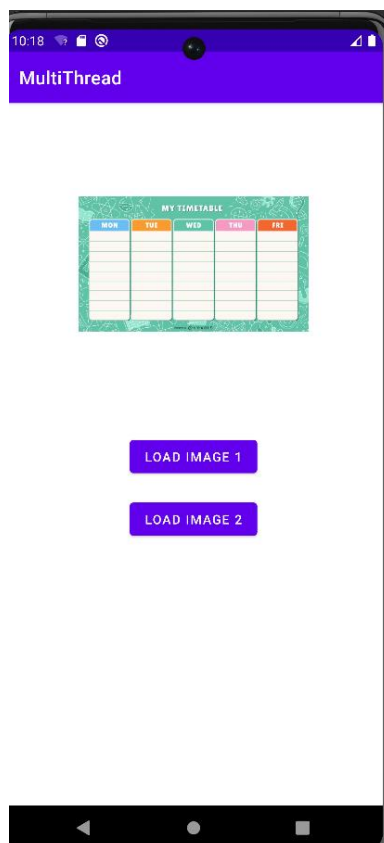
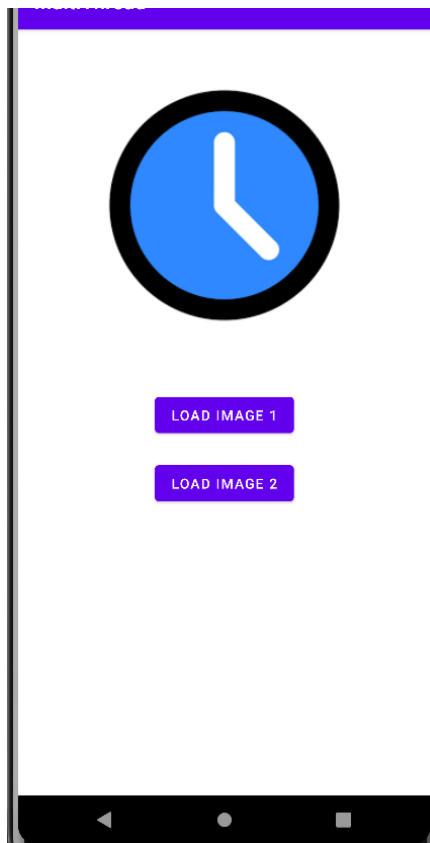
});

    }

}

```

Output:



Result:

Thus, the program for android application that makes use of multithreading was executed successfully.

Ex no: 07

Date:

Develop a native application that uses GPS location information

Aim:

To develop an android application that uses GPS location information.

Algorithm:

- Start the process
- Open the existing project in the android studio.
- LocationManager is class which help us to track the user's location while using the application,
- The location is tracked when the user logged into the application. The application will be used only when the location sharing is accepted by the user.
- In ChatScreenActivity.java is edit to know the location.
- Run the application in the Android Virtual Device(AVD).
- Stop the process.

Program:

ChatScreenActivity.java

```
package com.example.talkonline;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;
import android.Manifest;
import android.content.ClipData;
```

```
import android.content.Context;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.location.Criteria;
import android.location.Location;
import android.location.LocationListener;
import android.location.LocationManager;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.View;
import android.widget.Toast;
import android.widget.Toolbar;
import com.example.talkonline.Adapter.UserAdapter;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;
import java.util.ArrayList;
import java.util.List;
```

```
public class ChatScreenActivity extends AppCompatActivity implements
LocationListener{

    private RecyclerView recyclerView;
    private UserAdapter userAdapter;
```

```

private List<User> mUsers;
LoadingClass load;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_chat_screen);
    load = new LoadingClass(ChatScreenActivity.this);
    load.startLoading();
    recyclerView = findViewById(R.id.recycle_view);
    recyclerView.setHasFixedSize(true);
    recyclerView.setLayoutManager(new LinearLayoutManager(this));
    LocationManager locationManager = (LocationManager)
    getSystemService(Context.LOCATION_SERVICE);
    if(ActivityCompat.checkSelfPermission(ChatScreenActivity.this,
    Manifest.permission.ACCESS_FINE_LOCATION)!=
    PackageManager.PERMISSION_GRANTED){
        ActivityCompat.requestPermissions(ChatScreenActivity.this,new
    String[]{Manifest.permission.ACCESS_FINE_LOCATION},100);
    }
    locationManager.requestLocationUpdates(LocationManager.GPS_PROVIDER,
    0,0,this);
    mUsers = new ArrayList<>();
    readUser();
    load.dismissLoading();
}
private void readUser(){
    FirebaseUser firebaseUser = FirebaseAuth.getInstance().getCurrentUser();
    DatabaseReference reference =
    FirebaseDatabase.getInstance().getReference("user");
    reference.addValueEventListener(new ValueEventListener() {
        @Override

```

```

public void onDataChange(@NonNull DataSnapshot snapshot) {
    mUsers.clear();
    for(DataSnapshot dataSnapshot : snapshot.getChildren()){
        User user = dataSnapshot.getValue(User.class);
        assert user!=null;
        assert firebaseUser !=null;
        if(!dataSnapshot.getKey().equals(firebaseUser.getUid())){
            mUsers.add(user);
        }
    }
    userAdapter = new UserAdapter(getApplicationContext(),mUsers);
    recyclerView.setAdapter(userAdapter);
}

@Override
public void onCancelled(@NonNull DatabaseError error) {
}

});
}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
    MenuInflater inflater = getMenuInflater();
    inflater.inflate(R.menu.profilemenu,menu);
    return true;
}

@Override
public boolean onOptionsItemSelected(@NonNull MenuItem item) {
    item.setOnMenuItemClickListener(new
MenuItem.OnMenuItemClickListener() {
        @Override

```



```

        public boolean onOptionsItemSelected(@NonNull MenuItem item) {
            load.startLoading();
            Intent intent = new
Intent(ChatScreenActivity.this,ProfileActivity.class);
            startActivity(intent);
            load.dismissLoading();
            return true;
        }
    });
    return super.onOptionsItemSelected(item);
}
@Override
public void onLocationChanged(@NonNull Location location) {
}
@Override
public void onLocationChanged(@NonNull List<Location> locations) {
    LocationListener.super.onLocationChanged(locations);
}
@Override
public void onFlushComplete(int requestCode) {
    LocationListener.super.onFlushComplete(requestCode);
}
@Override
public void onStatusChanged(String provider, int status, Bundle extras) {
    LocationListener.super.onStatusChanged(provider, status, extras);
}
@Override
public void onProviderEnabled(@NonNull String provider) {
    LocationListener.super.onProviderEnabled(provider);
}

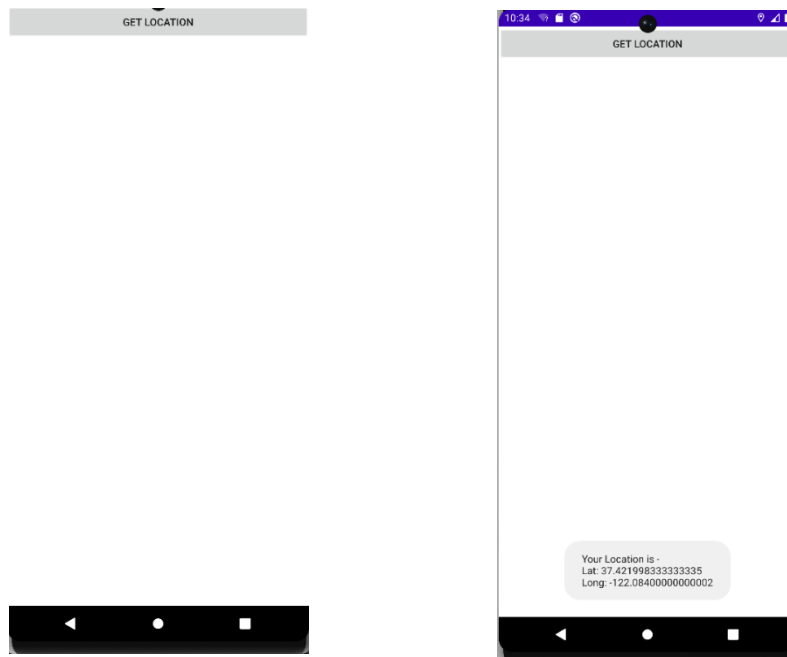
```

```

    }
    @Override
    public void onProviderDisabled(@NonNull String provider) {
        LocationListener.super.onProviderDisabled(provider);
    }
    @Override
    public void onPointerCaptureChanged(boolean hasCapture) {
        super.onPointerCaptureChanged(hasCapture);
    }
}

```

Output:



Result:

Thus, the program for android application that makes use of GPS information was executed successfully.

Ex no: 08

Date:

Implement an application that writes data to the SD card

Aim:

To develop an android application that writes data to the SD card.

Algorithm:

- Start the process.
- Open the existing project in the android studio.
- Store the login time in the SD card mounted in the android system.
- Seek the permission to access the SD card.
- Open a text file with application name and enter the login time and date.
- Close the file.
- Make a toast message to user as “SD card accessed successfully”
- Run the application in the Android Virtual Device(AVD).
- Stop the process.

Program:

MainActivity.java

```
package com.example.talkonline;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import android.Manifest;
import android.content.Intent;
import android.os.Bundle;
import android.os.Environment;
import android.view.View;
```

```

import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
import java.io.File;
import java.io.FileOutputStream;
import java.io.IOException;
import java.util.Calendar;
public class MainActivity extends AppCompatActivity {
    private TextView signUpText;
    private Button blogin;
    private TextView email,password;
    LoadingClass load;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        load = new LoadingClass(MainActivity.this);
        signUpText = findViewById(R.id.signUp);
        blogin = findViewById(R.id.blogin);
        email = findViewById(R.id.email);
        password = findViewById(R.id.password);
        if(FirebaseAuth.getInstance().getCurrentUser()!=null){
            load.startLoading();
            Intent intent = new Intent(MainActivity.this,ChatScreenActivity.class);
            startActivity(intent);

```

```

        load.dismissLoading();
        finish();
    }
    signUpText.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent intent = new Intent(MainActivity.this,SignUpActivity.class);
            startActivity(intent);
        }
    });
    login.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            load.startLoading();
            String semail = String.valueOf(email.getText());
            String spassword = String.valueOf(password.getText());
            FirebaseAuth.getInstance().signInWithEmailAndPassword(semail,spassword).addOnCompleteListener(new OnCompleteListener<AuthResult>() {
                @Override
                public void onComplete(@NonNull Task<AuthResult> task) {
                    if(task.isSuccessful()){
                        load.dismissLoading();
                        Intent intent = new
                        Intent(MainActivity.this,ChatScreenActivity.class);
                        startActivity(intent);
                        Toast.makeText(MainActivity.this, "Logged In Successfully",
                        Toast.LENGTH_SHORT).show();
                        loginTimeStore();
                    }
                    else {

```

```

        load.dismissLoading();

        Toast.makeText(MainActivity.this, "Error in login",
Toast.LENGTH_SHORT).show();

    }

}

});

}

});

}

void loginTimeStore(){
    String state = Environment.getExternalStorageState();
    if(Environment.MEDIA_MOUNTED.equals(state)){
        //Toast.makeText(MainActivity.this, "SD card",
Toast.LENGTH_SHORT).show();

        ActivityCompat.requestPermissions(this, new
String[]{Manifest.permission.READ_EXTERNAL_STORAGE},
            23);

        File folder =
Environment.getExternalStoragePublicDirectory(Environment.DIRECTORY_D
OCUMENTS);

        File file = new File(folder,"talkonline.txt");

        writeTextData(file, String.valueOf(Calendar.getInstance().getTime()));
    }
    else if(Environment.MEDIA_MOUNTED_READ_ONLY.equals(state)){
        Toast.makeText(this, "Can't access the sd card",
Toast.LENGTH_SHORT).show();
    }
    else{
        Toast.makeText(this, "No sd card mounted",
Toast.LENGTH_SHORT).show();
    }
}

```

```

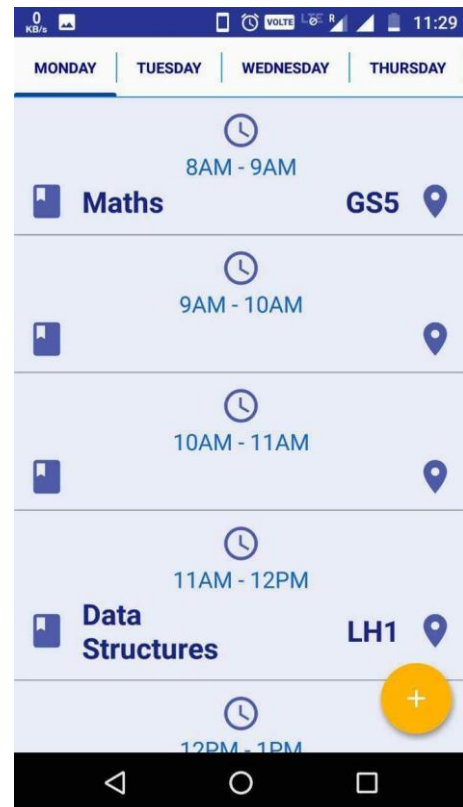
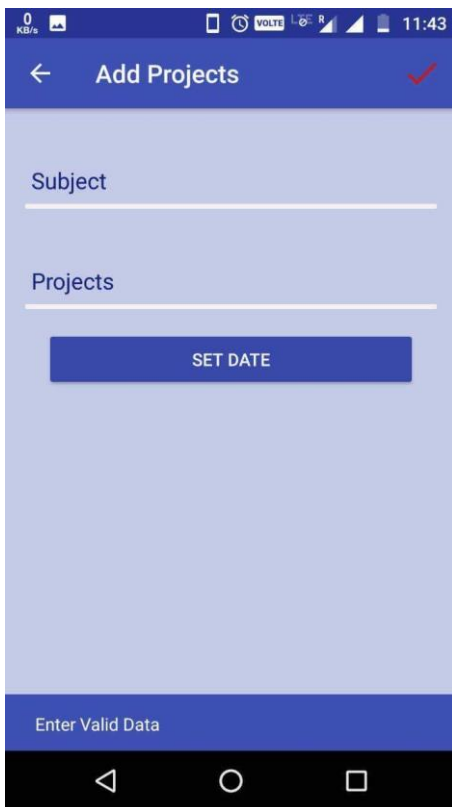
    }

    private void writeTextData(File file, String data) {
        FileOutputStream fileOutputStream = null;
        try {
            fileOutputStream = new FileOutputStream(file);
            fileOutputStream.write(data.getBytes());

            Toast.makeText(this, "SD card accessed successfully",
Toast.LENGTH_SHORT).show();
        } catch (Exception e) {
            e.printStackTrace();
        } finally {
            if (fileOutputStream != null) {
                try {
                    fileOutputStream.close();
                } catch (IOException e) {
                    e.printStackTrace();
                }
            }
        }
    }
}

```

Output:



Result:

Thus, the program for android application that writes data into the SD Card was executed successfully.

Ex no: 09

Date:

Implement an application that creates an alert upon receiving a message

Aim:

To develop an android application that creates an alert upon receiving a message.

Algorithm:

- Start the process.
- Open the existing project in the android studio.
- Toast is class which helps us to give alert message in the android application.
- These toast messages can be used while logging into the system, registering into the system, location access etc.,
- After adding the toast message, run the application in the Android Virtual Device(AVD).
- Stop the process.

Program:

MainActivity.java

```
package com.example.talkonline;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import android.Manifest;
import android.content.Intent;
import android.os.Bundle;
import android.os.Environment;
```

```

import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
import java.io.File;
import java.io.FileOutputStream;
import java.io.IOException;
import java.util.Calendar;
public class MainActivity extends AppCompatActivity {
    private TextView signUpText;
    private Button blogin;
    private TextView email,password;
    LoadingClass load;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        load = new LoadingClass(MainActivity.this);
        signUpText = findViewById(R.id.signUp);
        blogin = findViewById(R.id.blogin);
        email = findViewById(R.id.email);
        password = findViewById(R.id.password);
        if(FirebaseAuth.getInstance().getCurrentUser()!=null){
            load.startLoading();
            Intent intent = new Intent(MainActivity.this,ChatScreenActivity.class);

```

```

        startActivity(intent);
        load.dismissLoading();
        finish();
    }
    signUpText.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent intent = new Intent(MainActivity.this,SignUpActivity.class);
            startActivity(intent);
        }
    });
    login.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            load.startLoading();
            String semail = String.valueOf(email.getText());
            String spassword = String.valueOf(password.getText());
            FirebaseAuth.getInstance().signInWithEmailAndPassword(semail,spassword).addOnCompleteListener(new OnCompleteListener<AuthResult>() {
                @Override
                public void onComplete(@NonNull Task<AuthResult> task) {
                    if(task.isSuccessful()){
                        load.dismissLoading();
                        Intent intent = new
                        Intent(MainActivity.this,ChatScreenActivity.class);
                        startActivity(intent);
                        Toast.makeText(MainActivity.this, "Logged In Successfully",
                        Toast.LENGTH_SHORT).show();
                        loginTimeStore();
                    }
                }
            });
        }
    });

```

```

        else {
            load.dismissLoading();
            Toast.makeText(MainActivity.this, "Error in login",
Toast.LENGTH_SHORT).show();
        }
    }
});
}
});
}

void loginTimeStore(){
    String state = Environment.getExternalStorageState();
    if(Environment.MEDIA_MOUNTED.equals(state)){
        //Toast.makeText(MainActivity.this, "SD card",
Toast.LENGTH_SHORT).show();

        ActivityCompat.requestPermissions(this, new
String[]{Manifest.permission.READ_EXTERNAL_STORAGE},
        23);

        File folder =
Environment.getExternalStoragePublicDirectory(Environment.DIRECTORY_D
OCUMENTS);

        File file = new File(folder,"talkonline.txt");
        writeTextData(file, String.valueOf(Calendar.getInstance().getTime()));
    }
    else if(Environment.MEDIA_MOUNTED_READ_ONLY.equals(state)){
        Toast.makeText(this, "Can't access the sd card",
Toast.LENGTH_SHORT).show();
    }
    else{
        Toast.makeText(this, "No sd card mounted",
Toast.LENGTH_SHORT).show();
    }
}
}

```

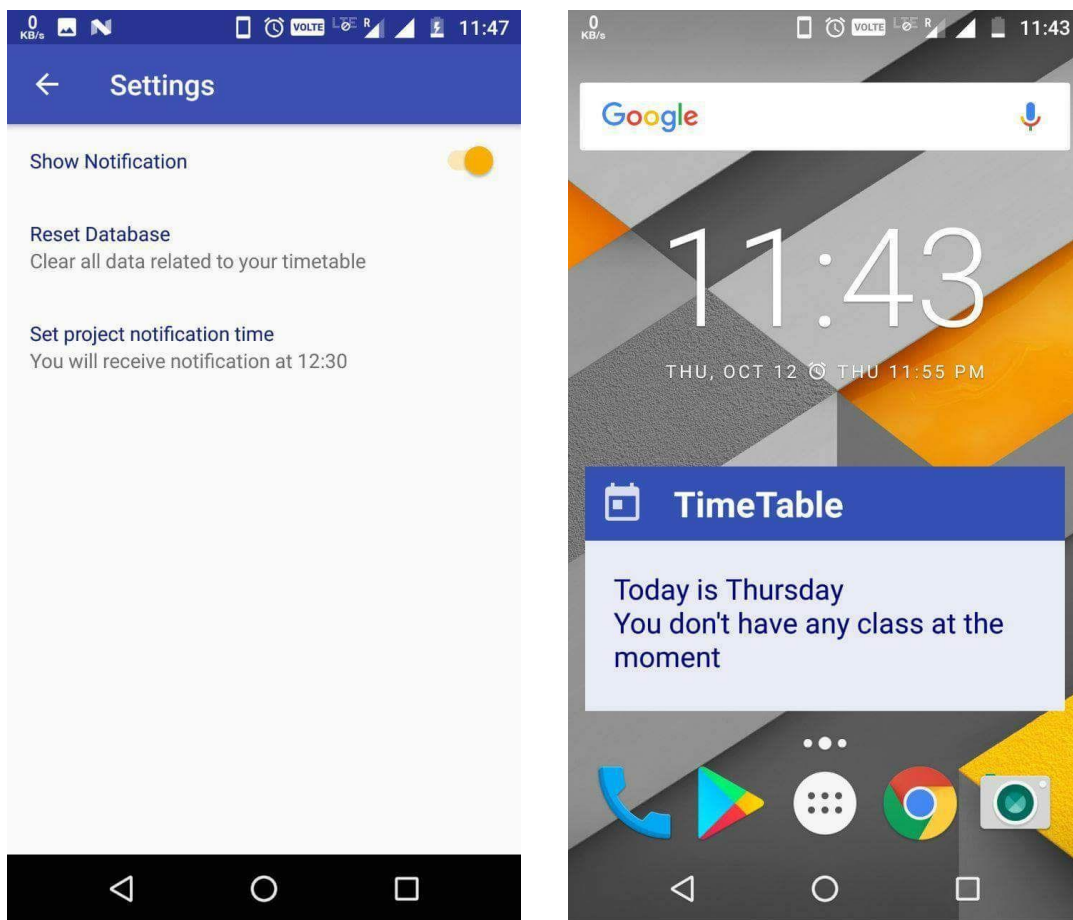
```

    }
}

private void writeTextData(File file, String data) {
    FileOutputStream fileOutputStream = null;
    try {
        fileOutputStream = new FileOutputStream(file);
        fileOutputStream.write(data.getBytes());
        Toast.makeText(this, "SD card accessed successfully",
Toast.LENGTH_SHORT).show();
    } catch (Exception e) {
        e.printStackTrace();
    } finally {
        if (fileOutputStream != null) {
            try {
                fileOutputStream.close();
            } catch (IOException e) {
                e.printStackTrace();
            }
        }
    }
}
}

```

Output:



Result:

Thus, the program for android application that creates an alert upon receiving a message was executed successfully.

Ex no: 10

Date:

Develop an application that makes use of RSS Feed

Aim:

To develop an android application that makes use of RSS (Rich Site Summary) Feed.

Algorithm:

- Start the process.
- Open a new project in the android studio by selecting the empty activity.
- Create a list view in the activity_main.xml
- Get the feed from a website and display it in the list view.
- Run the application in the Android Virtual Studio(AVD).
- Stop the process.

Program:

MainActivity.java

```
package com.example.rssfeed;
import android.app.ListActivity;
import android.content.Intent;
import android.net.Uri;
import android.os.AsyncTask;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ListView;
import android.widget.TextView;
import org.xmlpull.v1.XmlPullParser;
import org.xmlpull.v1.XmlPullParserException;
```

```

import org.xmlpull.v1.XmlPullParserFactory;
import java.io.IOException;
import java.io.InputStream;
import java.net.MalformedURLException;
import java.net.URL;
import java.util.ArrayList;
import java.util.List;
public class MainActivity extends ListActivity
{
    List headlines;
    List links;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        new MyAsyncTask().execute();
    }
    class MyAsyncTask extends AsyncTask<Object,Void,ArrayAdapter>
    {
        @Override
        protected ArrayAdapter doInBackground(Object[] params)
        {
            headlines = new ArrayList();
            links = new ArrayList();
            try
            {
                URL url = new URL("https://codingconnect.net/feed");
                XmlPullParserFactory factory = XmlPullParserFactory.newInstance();
                factory.setNamespaceAware(false);
            }
        }
    }
}

```



```

XmlPullParser xpp = factory.newPullParser();
xpp.setInput(getInputStream(url), "UTF_8");
boolean insideItem = false;
int eventType = xpp.getEventType();
while (eventType != XmlPullParser.END_DOCUMENT)
{
    if (eventType == XmlPullParser.START_TAG)
    {
        if (xpp.getName().equalsIgnoreCase("item"))
        {
            insideItem = true;
        }
        else if (xpp.getName().equalsIgnoreCase("title"))
        {
            if (insideItem)
                headlines.add(xpp.nextText()); //extract the headline
        }
        else if (xpp.getName().equalsIgnoreCase("link"))
        {
            if (insideItem)
                links.add(xpp.nextText()); //extract the link of article
        }
    }
    else if(eventType==XmlPullParser.END_TAG &&
xpp.getName().equalsIgnoreCase("item"))
    {
        insideItem=false;
    }
    eventType = xpp.next(); //move to next element
}

```

```

        }
    }
    catch (MalformedURLException e)
    {
        e.printStackTrace();
    }
    catch (XmlPullParserException e)
    {
        e.printStackTrace();
    }
    catch (IOException e)
    {
        e.printStackTrace();
    }
    return null;
}

protected void onPostExecute(ArrayAdapter adapter)
{
    adapter = new ArrayAdapter(MainActivity.this,
    android.R.layout.simple_list_item_1, headlines);
    setListAdapter(adapter);
}

@Override
protected void onItemClick(ListView l, View v, int position, long id)
{
    Uri uri = Uri.parse((links.get(position)).toString());
    Intent intent = new Intent(Intent.ACTION_VIEW, uri);
    startActivity(intent);
}

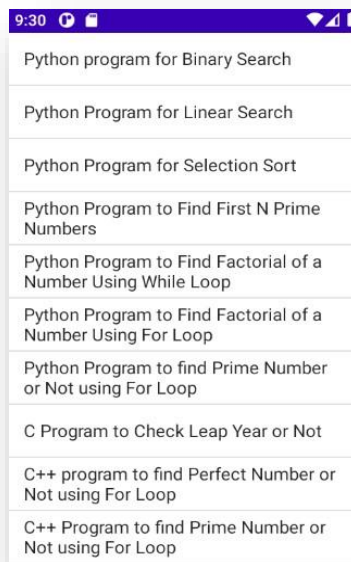
```

```

    }
    public InputStream getInputStream(URL url)
    {
        try
        {
            return url.openConnection().getInputStream();
        }
        catch (IOException e)
        {
            return null;
        }
    }
}

```

Output:



Result:

Thus, the program for android application that makes use of RSS Feed was executed successfully.

Ex no: 11

Date:

Develop a mobile application to send an email

Aim:

To develop an android application that send an email.

Algorithm:

- Start the process.
- Open the existing project in the android studio.
- Create function in the SignupActivity which an email is send to the registered user.
- Email is sent with the help of Intent Class.
- Run the application in the Android Virtual Device(AVD).
- Stop the process.

Program:

SignUpActivity.java

```
package com.example.talkonline;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import android.annotation.SuppressLint;
import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
```

```

import android.widget.Toast;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.database.FirebaseDatabase;
public class SignUpActivity extends AppCompatActivity {
    private TextView loginText;
    private EditText username,email,password,cpassword;
    private Button signup;
    @SuppressWarnings("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_sign_up);
        //Getting the values from the sign up activity.
        loginText = findViewById(R.id.login);
        username = findViewById(R.id.username);
        email = findViewById(R.id.email1);
        password = findViewById(R.id.password1);
        cpassword = findViewById(R.id.confirmPassword1);
        signup = findViewById(R.id.bsignup);
        if(FirebaseAuth.getInstance().getCurrentUser()!=null){
            Intent intent = new
Intent(SignUpActivity.this,ChatScreenActivity.class);
            startActivity(intent);
            finish();
        }
        //Moving the activity to main activity.

```

```

loginText.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent intent = new Intent(SignUpActivity.this, MainActivity.class);
        startActivity(intent);
    }
});

//signup check
signup.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        String semail = String.valueOf(email.getText());
        String spassword = String.valueOf(password.getText());
        String scpassword = String.valueOf(cpassword.getText());
        String susername = String.valueOf(username.getText());
        if(!semail.isEmpty() && !susername.isEmpty()) {
            if(spassword.length()==7){
                if(spassword.equals(scpassword)){
                    FirebaseAuth.getInstance().createUserWithEmailAndPassword(semail, spassword).addOnCompleteListener(new OnCompleteListener<AuthResult>() {
                        @Override
                        public void onComplete(@NonNull Task<AuthResult> task) {
                            if(task.isSuccessful()){
                                FirebaseDatabase.getInstance().getReference("user/"+FirebaseAuth.getInstance().getCurrentUser().getUid()).setValue(new User(susername, semail, ""));
                                Intent intent = new Intent(SignUpActivity.this, ChatScreenActivity.class);
                                startActivity(intent);

```

```

        Toast.makeText(SignUpActivity.this,"Signed Up
successfully",Toast.LENGTH_SHORT).show();
        emailSend(semicolon);
    }
    else{
        Toast.makeText(SignUpActivity.this,"Error in
signup",Toast.LENGTH_SHORT).show();
    }
}
});
}
else
    Toast.makeText(SignUpActivity.this,"Password doesn't
match",Toast.LENGTH_SHORT).show();
}
else
    Toast.makeText(SignUpActivity.this,"Password length should be
7.",Toast.LENGTH_SHORT).show();
}
}
});
}
void emailSend(String email){
    Intent emailIntent = new Intent(Intent.ACTION_SEND);
    emailIntent.setData(Uri.parse("mailto:"));
    emailIntent.setType("text/plain");
    emailIntent.putExtra(Intent.EXTRA_EMAIL, email);
    emailIntent.putExtra(Intent.EXTRA_SUBJECT, "Hi hello user!");
    emailIntent.putExtra(Intent.EXTRA_TEXT, "Welcome to talkonline
application. Feel free to speak.");
}

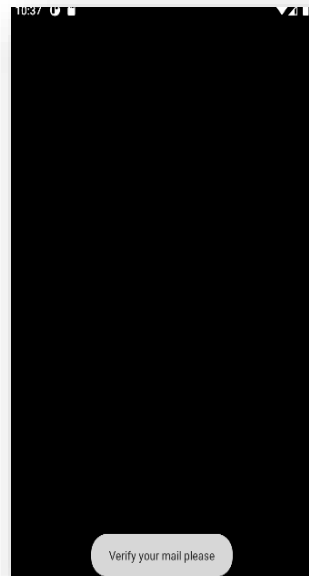
```

```

try {
    Toast.makeText(this, "Verify your mail please",
Toast.LENGTH_SHORT).show();
}
catch (android.content.ActivityNotFoundException e){
}
}
}
}

```

Output:



Result:

Thus, the program for android application to send an email was executed successfully.

Ex no: 12

Date:

Develop a Mobile application for time table management (Mini Project)

Aim:

To develop a mobile application for time table management.

Algorithm:

- Start the process
- Open the existing project in the android application.
- Add the other features to the project.
- Add the required activity to the project.
- Run the application in the Android Virtual Device (AVD).
- Stop the process

Program:

MainActivity.java

```
package com.example.timetable;

import android.app.AlarmManager;
import android.app.PendingIntent;
import android.content.Context;
import android.content.Intent;
import android.content.SharedPreferences;
import android.content.pm.ApplicationInfo;
import android.content.pm.PackageManager;
import android.icu.util.Calendar;
import android.net.Uri;
import android.os.Build;
import android.preference.PreferenceManager;
import android.support.annotation.RequiresApi;
import android.support.v4.app.FragmentActivity;
import android.support.v4.view.GravityCompat;
import android.support.v4.view.ViewPager;
import android.support.v4.widget.DrawerLayout;
```

```

import android.os.Bundle;
import android.support.v7.app.ActionBar;
import android.util.Log;
import android.view.Gravity;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.AdapterView;
import android.widget.BaseAdapter;
import android.widget.ImageView;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import com.github.amlcurran.showcaseview.ShowcaseView;
import com.github.amlcurran.showcaseview.targets.Target;
import com.github.amlcurran.showcaseview.targets.ViewTarget;
import com.github.clans.fab.FloatingActionButton;
import com.majeur.cling.Cling;
import com.majeur.cling.ClingManager;
import com.ogaclejapan.smarttablayout.SmartTabLayout;
import com.ogaclejapan.smarttablayout.utils.v4.FragmentPagerAdapter;
import com.ogaclejapan.smarttablayout.utils.v4.FragmentPagerItems;

import java.io.File;
import java.util.Date;

public class MainActivity extends FragmentActivity {

    private static final String FOR_FIRST_TIME = "for first time" ;
    public int currentPage = 0;
    private static Context context;

    FloatingActionButton fab = null;
    ListView leftlist;
    static MainActivity mainActivity;

    static AlarmManager alarmManager;
    static PendingIntent pendingIntent;

    private DrawerLayout mDrawerLayout;

    @RequiresApi(api = Build.VERSION_CODES.N)
    @Override

```

```

protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    fab = (FloatingActionButton) findViewById(R.id.fab);
    mDrawerLayout = (DrawerLayout) findViewById(R.id.drawer);

    leftlist = (ListView) findViewById(R.id.leftlist);

    mainActivity = this;
    context = this;
    String navigationSt[] = new String[]{"Projects", "Tutorial",
    "Attendance Manager", "Poll", "Settings",
    "Share", "About"};
    int navigationImg[] = new
int[]{R.mipmap.ic_proj,R.mipmap.ic_tut,R.mipmap.ic_att,R.mipmap.ic_poll,R.mipma
p.ic_settings,
    R.mipmap.ic_share,R.mipmap.ic_people};
    MyDrawerAdapter navigationAdapter = new
MyDrawerAdapter(getApplicationContext(), navigationSt
    , navigationImg);
    leftlist.setAdapter(navigationAdapter);

    leftlist.setOnItemClickListener(new AdapterView.OnItemClickListener() {
        @Override
        public void onItemClick(AdapterView<?> parent, View view, int position,
long id) {
            selectFromDrawer(position);
            mDrawerLayout.closeDrawers();
        }
    });
    FragmentPagerItemAdapter adapter = new FragmentPagerItemAdapter(
        getSupportFragmentManager(), FragmentPagerItems.with(this)
        .add("MONDAY", Monday.class)
        .add("TUESDAY", Tuesday.class)
        .add("WEDNESDAY", Wednesday.class)
        .add("THURSDAY", Thursday.class)
        .add("FRIDAY", Friday.class)
        .create());

    // Calendar c = Calendar.getInstance();

    ViewPager viewPager = (ViewPager) findViewById(R.id.pager);

```

```

viewPager.setAdapter(adapter);

SmartTabLayout viewPagerTab = (SmartTabLayout)
findViewById(R.id.viewpagertab);
viewPagerTab.setViewPager(viewPager);

if(getIntent() != null){
    viewPager.setCurrentItem(getIntent().getIntExtra("page",0));
}

viewPagerTab.setOnPageChangeListener(new
ViewPager.OnPageChangeListener() {
    @Override
    public void onPageScrolled(int position, float positionOffset, int
positionOffsetPixels) {

    }
    @Override
    public void onPageSelected(int position) {
        currentPage = position;
//
Toast.makeText(getApplicationContext(),""+currentPage,Toast.LENGTH_SHORT).s
how();
    }
    @Override
    public void onPageScrollStateChanged(int state) {

    }
});
fab.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent intent = new Intent(MainActivity.this,EditorActivity.class);
        startActivity(intent);
    }
});
/** Setup the shared preference listener */
SharedPreferences prefs =
PreferenceManager.getDefaultSharedPreferences(this);

if(prefs.getBoolean(FOR_FIRST_TIME,true)) {
    showTut();
    SharedPreferences.Editor editor = prefs.edit();
    editor.putBoolean(FOR_FIRST_TIME,false);

```

```

        editor.apply();
    }

    int hour = prefs.getInt(SettingsActivity.NOT_HOUR,7);
    addNotification(MainActivity.this, hour);
}

@RequiresApi(api = Build.VERSION_CODES.N)
@Override
protected void onResume() {
    super.onResume();
    SharedPreferences prefs = PreferenceManager.getDefaultSharedPreferences(this);
    int hour = prefs.getInt(SettingsActivity.NOT_HOUR,7);
    addNotification(MainActivity.this, hour);
}

public void selectFromDrawer(int position){
    switch (position){
        case 4:
            Intent intent = new Intent(MainActivity.this, SettingsActivity.class);
            startActivity(intent);
            break;
        case 6:
            Intent intent2 = new Intent(MainActivity.this, AboutActivity.class);
            startActivity(intent2);
            break;
        case 5:
            PackageManager pm = getPackageManager();
            ApplicationInfo appInfo;
            try {
                appInfo = pm.getApplicationInfo(getPackageName(),
                    PackageManager.GET_META_DATA);
                Intent sendBt = new Intent(Intent.ACTION_SEND);
                sendBt.setType("*/*");
                sendBt.putExtra(Intent.EXTRA_STREAM,
                    Uri.parse("file://" + appInfo.publicSourceDir));
                startActivity(Intent.createChooser(sendBt,
                    "Share it using"));
            } catch (PackageManager.NameNotFoundException e1) {
                e1.printStackTrace();
            }
            break;
        case 0:

```

```

        Intent intent1 = new Intent(MainActivity.this,ProjectShowActivity.class);
        startActivity(intent1);
        break;
    case 1:
        showTut();
        break;
    case 2:
        Intent in = new Intent(this,AttendanceActivity.class);
        startActivity(in);
        break;
    case 3:
        Intent i=new Intent(this,Poll.class);
        startActivity(i);
        break;
    }
}

```

```

@RequiresApi(api = Build.VERSION_CODES.N)
public void addNotification(Context context,int hours){

    Calendar calendar = Calendar.getInstance();

    Date currentTime = Calendar.getInstance().getTime();

    SharedPreferences prefs = PreferenceManager.getDefaultSharedPreferences(this);

    int hour = prefs.getInt(SettingsActivity.NOT_HOUR,hours);
    int min = prefs.getInt(SettingsActivity.NOT_MIN,0);
    // calendar.add(Calendar.DATE,1);
    // Toast.makeText(getApplicationContext(),hour+": "+min,Toast.LENGTH_SHORT).show();

    calendar.set(Calendar.HOUR_OF_DAY,hour);
    calendar.set(Calendar.MINUTE,min);
    calendar.set(Calendar.SECOND,0);

    Intent intent = new Intent(context,Notification_reciver.class);

    pendingIntent = PendingIntent.getBroadcast(context,
        100,intent,PendingIntent.FLAG_UPDATE_CURRENT);

    alarmManager = (AlarmManager)
context.getSystemService(ALARM_SERVICE);

```

```
alarmManager.setExact(AlarmManager.RTC_WAKEUP,calendar.getTimeInMillis(),p
endingIntent);
}
```

```
public static Context getContext(){
    return MainActivity.context;
}
```

```
public class MyDrawerAdapter extends BaseAdapter {
```

```
    private Context context;
    private String[] titles;
    private int[] images;
    private LayoutInflater inflater;
```

```
    public MyDrawerAdapter(Context context, String[] titles, int[] images) {
        this.context = context;
        this.titles = titles;
        this.images = images;
        this.inflater = LayoutInflater.from(this.context);
    }
```

```
    @Override
    public int getCount() {
        return titles.length;
    }
```

```
    @Override
    public Object getItem(int position) {
        return null;
    }
```

```
    @Override
    public long getItemId(int position) {
        return 0;
    }
```

```
    @Override
    public View getView(int position, View convertView, ViewGroup parent) {
        ViewHolder mViewHolder;
        if (convertView == null) {
            convertView = inflater.inflate(R.layout.singlenavigation_view, null);
            mViewHolder = new ViewHolder();
        }
```

```

        convertView.setTag(mViewHolder);
    } else {
        mViewHolder = (ViewHolder) convertView.getTag();
    }

    mViewHolder.tvTitle = (TextView) convertView
        .findViewById(R.id.text_navigation);
    mViewHolder.ivIcon = (ImageView) convertView
        .findViewById(R.id.image_navigation);

    mViewHolder.tvTitle.setText(titles[position]);
    mViewHolder.ivIcon.setImageResource(images[position]);

    return convertView;
}

private class ViewHolder {
    TextView tvTitle;
    ImageView ivIcon;
}

private Intent createShareForecastIntent() {
    String path = "/sdcard/mytxt.txt";
    File file = new File(path);
    Intent sharingIntent = new Intent(Intent.ACTION_SEND);
    sharingIntent.setType("text/*");
    try {
        sharingIntent.putExtra(Intent.EXTRA_STREAM, Uri.parse("file://" +
file.getAbsolutePath()));
    } catch (Exception e){

    }
    startActivity(Intent.createChooser(sharingIntent, "share file with"));
    return sharingIntent;
}

private void showTut() {
    ClingManager mClingManager = new ClingManager(this);

    mClingManager.addCling(new Cling.Builder(this)
        .setTitle("Welcome to TimeTable!")
        .setContent("An application that will help to organise your college life")
        .build());
}

```



```

mClingManager.addCling(new Cling.Builder(this)
    .setTitle("Days")
    .setContent("Swipe to see the schedule for each day of the week")
    .setTarget(new com.majeur.cling.ViewTarget(this, R.id.viewpagertab))
    .build());

mClingManager.addCling(new Cling.Builder(this)
    .setTitle("Add")
    .setContent("Use button to add a class in the desired timing slot")
    .setTarget(new com.majeur.cling.ViewTarget(this, R.id.fab))
    .build());

mClingManager.addCling(new Cling.Builder(this)
    .setTitle("Long Press")
    .setContent("Tap and hold to edit or delete an entry")
    .setTarget(new com.majeur.cling.ViewTarget(this, R.id.list_single))
    .build());

mClingManager.addCling(new Cling.Builder(this)
    .setTitle("Navigation Drawer")
    .setContent("Slide right to know more interesting features of the
application")
    .setTarget(new com.majeur.cling.ViewTarget(this, R.id.navigation))
    .build());

String content = "Help manage your projects\n\nNotify you of the class and its
location just before" +
    " the class starts\n\nPuts your phone in vibration mode during class so that
you don't have to\n\n" +
    "Share your app to friends\n\nYou can even add a widget so that you miss
no updates";

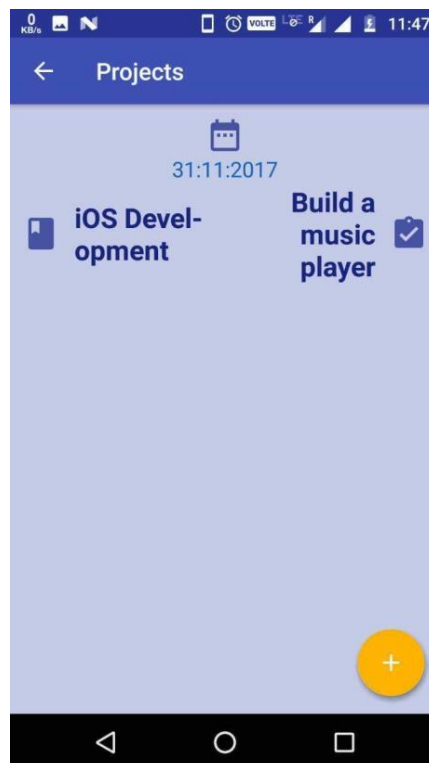
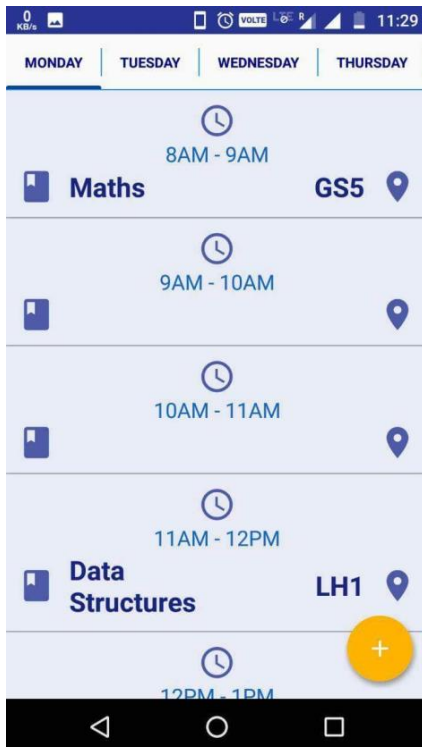
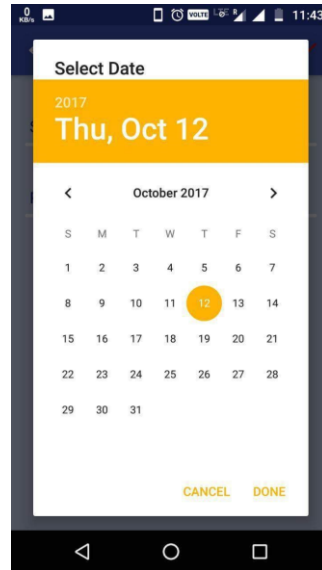
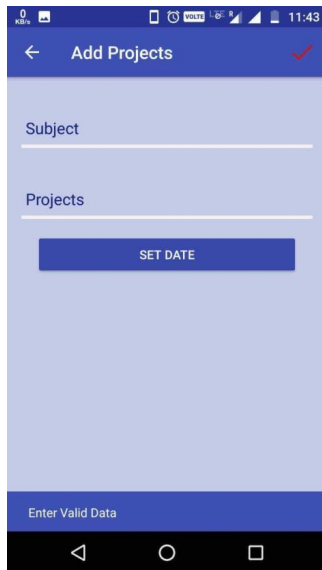
mClingManager.addCling(new Cling.Builder(this)
    .setTitle("This app can...")
    .setContent(content)
    .build());

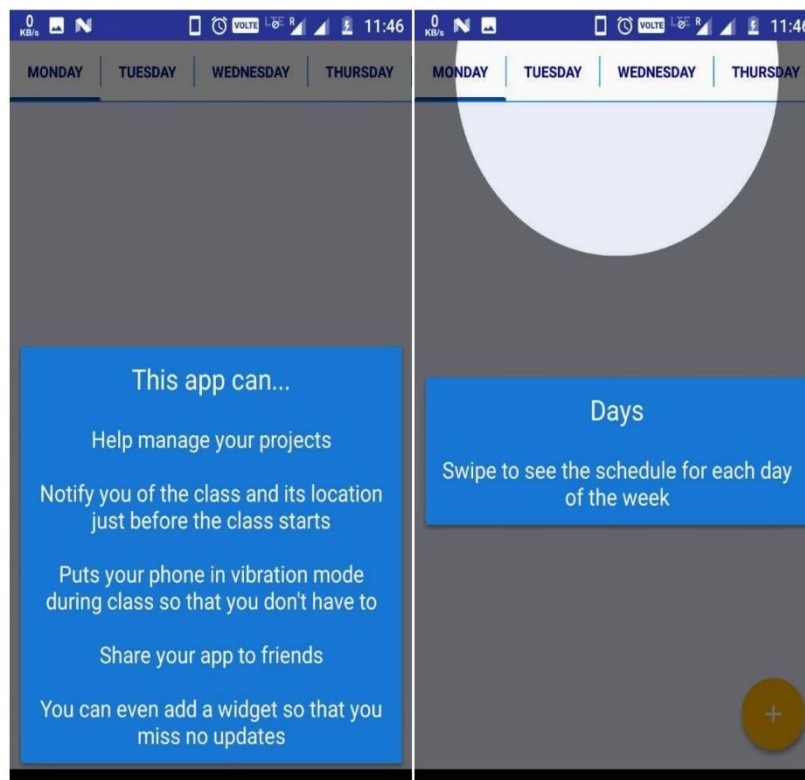
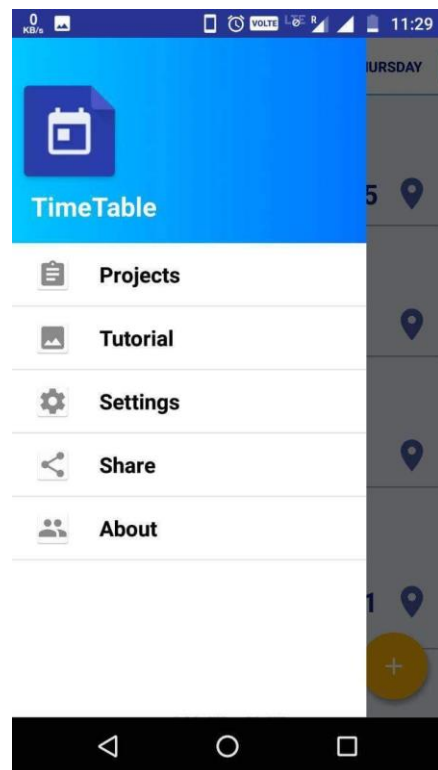
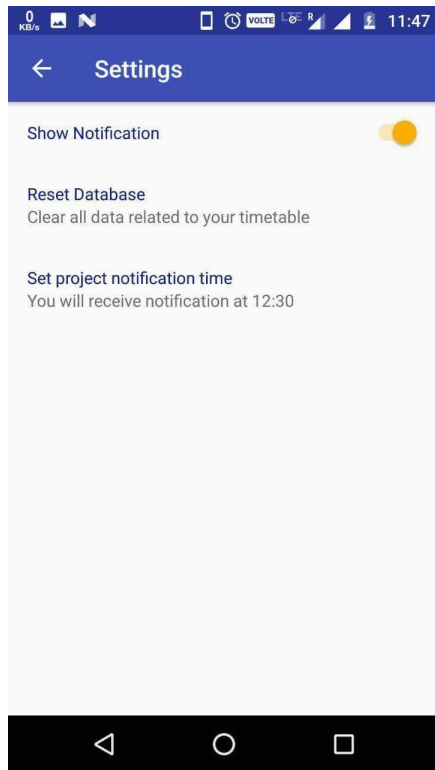
mClingManager.start();
}

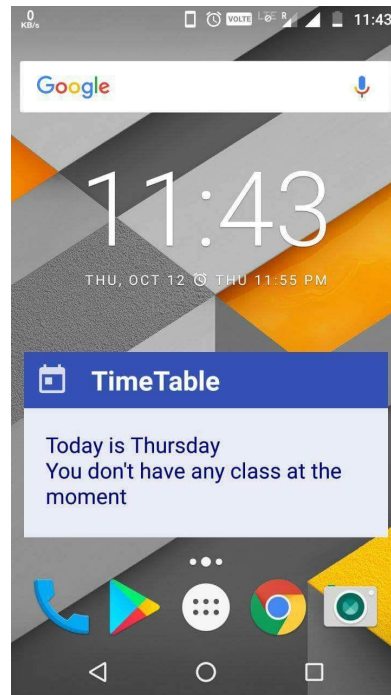
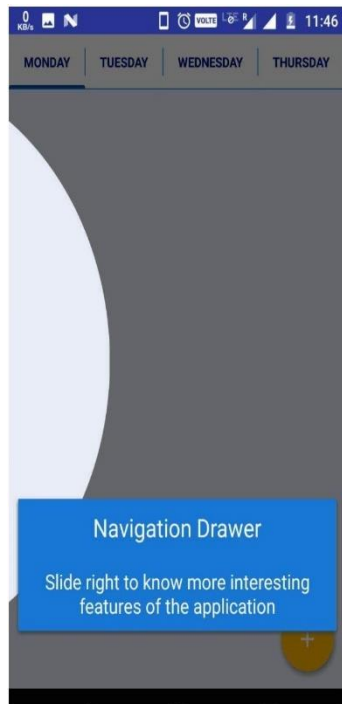
}

```

Output







Result:

Thus, the time table manager application was developed successfully and verified.